MARICOPA COUNTY TRANSPORTATION EXCISE TAX Forecasting Process & Results FY 2017-2026







Financial Management Services
September 2016

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MARICOPA COUNTY TRANSPORTATION EXCISE TAX OFFICIAL FORECAST UPDATE RISK ANALYSIS OF EXPECTED VALUES

Introduction

In 1985, the voters of Maricopa County approved Proposition 300 to establish a ½ cent transportation excise (sales) tax for construction of a regional freeway system within the county. The ½ cent sales tax was approved for a period of 20 years and ended on December 31, 2005.

On November 2, 2004, Maricopa County's voters approved Proposition 400 which extended the ½ cent sales tax for another 20 years through December 31, 2025. The sales tax extension is used for construction of new freeways, widening of existing freeways and highways, improvements to the arterial street system, regional bus service and other special transportation services, and high capacity transit services such as light rail, bus rapid transit and express buses.

This document contains the official forecast of expected values for the Maricopa County Transportation Excise Tax for the period FY 2017–2026 as developed by the Arizona Department of Transportation (the Department) in cooperation with the Maricopa Association of Governments and Valley Metro.

Background

Since 1986, the Arizona Department of Transportation (the Department) has used a comprehensive regression-based econometric model to estimate Transportation Excise Tax revenues for Maricopa County. These revenues, which flow into the Regional Area Road Fund (RARF), are the major funding source for the Maricopa County Freeway Program.

The revenue forecast is highly dependent on estimates of independent variables. In order to deal with variability between estimated and actual values, the Department introduced the Risk Analysis Process (RAP) in 1992. The RAP relies on probability analysis and the independent evaluation of the model's variables by an expert panel of economists. The process results in a series of forecasts, with specified probabilities of occurrence, rather than a single or "best guess" estimate.

Enhanced forecasting accuracy was achieved in July 1996, when Hickling Lewis Brod Inc. (HLB) working in conjunction with Dr. Dennis Hoffman of Arizona State University, incorporated economic data and independent variables which were not included in the 1986 model.

In September 2005, the Department had HDR Decision Economics re-examine the structure of the RARF model and re-evaluate the set of explanatory variables used in the production of the RARF revenue forecasts. Three new variables (U. S. Housing Starts, Sky Harbor Passenger Traffic and Maricopa County Total Non-Farm Employment Growth) were added to the existing list of variables used in the RARF regression equations. The September 2010 panel members requested the Maricopa County per capita personal income variable to be in nominal dollars instead of real dollars. In September 2011, the prime interest rate variable was replaced by the 30 year mortgage rate variable and the U.S. housing starts variable was removed from the model. In September 2014, Phoenix-Mesa Gateway Passenger Traffic was combined with Phoenix Sky Harbor Passenger Traffic to form a Phoenix Sky Harbor/Gateway airports passenger traffic variable.

The independent variables contained in the current model are:

- 1. Maricopa County nominal personal income growth
- 2. Maricopa County population growth
- 3. Maricopa County construction employment growth
- 4. Phoenix consumer price index (CPI)
- 5. Phoenix Sky Harbor/Gateway airports passenger traffic growth
- 6. Maricopa County total non-farm employment growth
- 7. 30 year mortgage rate

Risk Analysis Panel

The Risk Analysis Process (RAP) relies heavily on the judgments of an expert panel of economists to provide information critical to the forecasting process. In August 2016, a panel of ten economic and financial experts representing public, private, and academic sectors submitted their individual estimates of the model's independent variables and comments on the future economic outlook. The information gathered from the panelists was input into the forecasting model to produce a series of forecasts with associated probabilities of occurrence. The panelists' inputs are reflected in the attached tables in this report.

Model Results

This year's panel inputs produced a mean forecast of \$5,161.7 million for the period FY 2017-2026 with a compound growth rate (CGR) of 5.5 percent. The Department's Official Forecast for FY 2017-2026 totals \$4,986.7 million with a compound growth rate of 5.1 percent. This year's official forecast is \$138.1 million lower than last year's official forecast.

The Official Forecast result incorporates the 50 percent confidence interval growth rates for each year of the forecast except for FY 2017. The FY 2017 forecast of \$411.4 million was developed by ADOT staff independently of the econometric model using time series techniques, historical growth rates, projected growth rates and recent legislative changes.

Mean <u>Forecast</u>	Official	Confidence
<u>Forecast</u>	Foreset	
	<u>Forecast</u>	<u>Level</u>
415.2	411.4	
442.2	436.3	50%
471.7	461.1	50%
501.9	486.9	50%
530.6	512.5	50%
559.4	537.9	50%
587.7	562.8	50%
615.4	589.1	50%
644.4	613.8	50%
<u>393.2</u>	<u>374.9</u>	50%
\$5,161.7	\$4,986.7	
5.5%	5.1%	
	442.2 471.7 501.9 530.6 559.4 587.7 615.4 644.4 393.2 \$5,161.7	442.2 436.3 471.7 461.1 501.9 486.9 530.6 512.5 559.4 537.9 587.7 562.8 615.4 589.1 644.4 613.8 393.2 374.9 \$5,161.7 \$4,986.7

Note: /1 FY 2026 forecast reflects the expiration of the transportation excise tax extension on December 31, 2025

For comparison purposes, the September 2015 and September 2016 Official Forecasts are shown below:

	FY 2017-2026 Compa (Dollars in M		
	Sep. 15	Sep. 16	
Fiscal	Official	Official	
<u>Year</u>	<u>Forecast</u>	<u>Forecast</u>	<u>Difference</u>
2017	426.6	411.4	(15.2)
2018	451.6	436.3	(15.3)
2019	476.8	461.1	(15.7)
2020	501.5	486.9	(14.6)
2021	526.7	512.5	(14.2)
2022	551.6	537.9	(13.7)
2023	576.0	562.8	(13.2)
2024	602.3	589.1	(13.2)
2025	629.0	613.8	(15.2)
2026/1	<u>382.7</u>	<u>374.9</u>	<u>(7.8)</u>
Total Average CGR	\$5,124.8 4.9%	\$4,986.7 5.1%	(\$138.1)

Note: /1 FY 2026 forecast reflects the expiration of the transportation excise tax extension on December 31, 2025

Summary

The Department's Official Forecast for FY 2017-2026 totals \$4,986.7 million, which is \$138.1 million lower than the September 2015 Official Forecast. The RAP panel expected Maricopa County's personal income, population and employment to experience moderate rates of growth. Compared to last year, the panel inputs for Non-Farm Employment and Personal Income were modestly higher. However, the RAP panel expected Construction Employment growth to be slightly lower in the near term than expected last year.

Supplementary Information

The remainder of this report presents supplementary information on the detailed results of the RAP model and Risk Analysis Process. While the Official Forecast period is FY 2017-2026, panel inputs were requested for FY 2017-2021, 2024 and 2026. Data displayed for other than the requested years has been extrapolated.

RARF Official Revenue Forecast
With Category Detail and Confidence Interval by Fiscal Year
(Current Dollars in Millions)

Fiscal Year Percentile	2016 Actual	2017	2018 50%	2019	2020	2021	2022	2023	2024	2025	2026/1 50%
Retail Sales	\$214.3	\$222.1	\$241.4	\$257.9	\$274.2	\$290.7	\$305.7	\$320.6	\$336.8	\$351.3	\$216.2
Contracting	34.5	37.7	39.0	41.1	43.7	46.2	48.9	51.4	54.0	56.1	34.2
Utilities	31.9	32.3	32.9	33.4	34.4	35.4	36.4	37.5	38.6	39.9	23.9
Restaurant and Bar	44.3	46.7	48.9	51.6	54.3	57.1	60.3	63.5	66.5	70.0	42.5
Rental of Real Property	41.8	43.8	44.5	46.7	49.1	51.3	53.9	56.2	58.8	61.0	37.3
Rental of Personal Property	13.6	13.4	14.2	15.0	15.8	16.4	17.3	18.2	19.0	20.1	12.1
Other	16.4	15.4	15.4	15.4	15.4	15.4	15.4	15.4	15.4	15.4	8.7
Total	\$396.8	\$411.4	\$436.3	\$461.1	\$486.9	\$512.5	\$537.9	\$562.8	\$589.1	\$613.8	\$374.9

Note: /1 FY 2026 forecast reflects the expiration of the transportation excise tax extension on December 31, 2025

RARF TOTAL TAX REVENUE RISK ANALYSIS RESULTS

(Current Dollars in Millions)

lessia										
Year	Mean	10%	20%	30%	40%	20%	%09	%0 2	%08	%06
2017	415.2	462.8	442.2	430.3	420.3	411.4	402.6	393.8	384.8	371.9
2018	442.2	524.6	488.9	468.1	450.6	436.3	421.1	405.7	389.7	367.5
2019	471.7	589.5	536.8	507.5	481.7	461.1	441.7	420.9	398.0	367.8
2020	501.9	648.6	581.4	545.5	514.1	486.9	461.6	438.4	409.2	373.1
2021	530.6	703.4	623.2	577.9	543.5	512.5	483.6	454.2	421.2	383.5
2022	559.4	753.4	662.0	611.7	574.3	537.9	504.7	472.7	437.8	395.1
2023	587.7	803.7	698.7	645.0	603.4	562.8	528.2	492.4	454.1	407.9
2024	615.4	845.7	735.6	6.929	628.1	589.1	551.3	512.4	470.8	420.2
2025	644.4	6.968	773.2	7.707	9.759	613.8	574.0	531.0	489.4	436.0
2026/1	393.2	547.9	474.4	431.8	402.0	374.9	348.8	323.4	296.1	262.1
Total	\$5,161.7	\$6,776.5	\$6,016.4	\$5,602.4	\$5,275.6	\$4,986.7	\$4,717.6	\$4,444.9	\$4,151.1	\$3,785.1

/1 FY 2026 forecast reflects the expiration of the transportation excise tax extension on December 31, 2025

RARF OFFICIAL REVENUE FORECAST DISTRIBUTION

(Current Dollars in Millions)

	Regional Area R	oad Fund (RARF) /1	Public Transportation	
Fiscal	Freeways	Arterial Streets	Fund	
Year	(56.2%)	(10.5 %)	(33.3%)	Total
2017	231.2	43.2	137.0	411.4
2018	245.2	45.8	145.3	436.3
2019	259.2	48.4	153.5	461.1
2020	273.7	51.1	162.1	486.9
2021	288.0	53.8	170.7	512.5
2022	302.3	56.5	179.1	537.9
2023	316.3	59.1	187.4	562.8
2024	331.0	61.9	196.2	589.1
2025	345.0	64.4	204.4	613.8
2026 /2	210.7	39.4	124.8	374.9
TOTALS	\$2,802.6	\$523.6	\$1,660.5	\$4,986.7

Note: 1/ The Regional Public Transportation Authority receives a portion of the excise tax funds for transit costs which is adjusted annually by the GDP price deflator. Beginning July 1, 2005, this transfer from RARF is divided equally between MAG and the Public Transportation Fund for planning and administering the regional transportation plan. 2/ FY 2026 forecast reflects the expiration of the transportation excise tax extension on December 31, 2025.

Distribution

Per Laws 2004, Chapter 2 (HB 2456), the sales tax extension will be distributed as follows:

- 1. 56.2 percent to the Regional Area Road (RARF) fund for freeways and other routes in the state highway systems, including capital expenses.
- 2. 10.5 percent to the RARF fund for major arterial streets and intersection improvements, including capital expenses and implementation studies.
- 3. 33.3 percent to the Public Transportation Fund for:
 - (a) Capital costs, maintenance and operation of public transportation classifications.
 - (b) Capital costs and utility relocation costs associated with a light rail public transit system.

PANELIST DATA VALUES

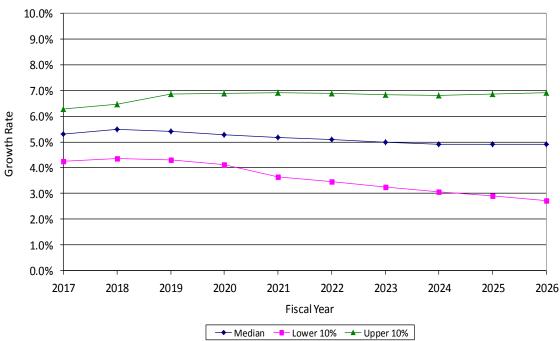
		Nominal		Construction	30 Year		Sky Harbor/Gateway	Total Non-Farm
		Pers. Inc.	Population	Employment	Mortgage	Phoenix CPI	Passenger	Employment
		Growth /1	Growth /1	Growth /1	Rate	Growth/1	Traffic Growth	Growth /1
FY 2017								
	Median	5.31%	1.88%	6.47%	3.73%	1.92%	3.27%	3.26%
	Lower 10%	4.25%	1.54%	4.19%	3.46%	1.37%	1.67%	2.44%
	Upper 10%	6.28%	2.26%	9.33%	4.39%	2.60%	4.51%	3.94%
FY 2018								
	Median	5.48%	1.91%	6.33%	4.01%	2.01%	3.03%	3.23%
	Lower 10%	4.35%	1.56%	3.92%	3.57%	1.38%	0.77%	2.40%
	Upper 10%	6.48%	2.35%	9.72%	4.86%	2.70%	4.26%	3.93%
FY 2019								
	Median	5.40%	1.94%	5.70%	4.24%	2.19%	2.89%	3.15%
	Lower 10%	4.31%	1.45%	2.63%	3.76%	1.47%	0.92%	1.96%
	Upper 10%	6.86%	2.41%	9.61%	5.39%	2.96%	4.34%	4.32%
FY 2020								
	Median	5.28%	1.93%	4.35%	4.57%	2.27%	2.83%	3.01%
	Lower 10%	4.11%	1.38%	-0.13%	3.89%	1.49%	0.72%	1.78%
	Upper 10%	6.88%	2.44%	9.67%	5.98%	3.07%	4.20%	4.29%
FY 2021								
	Median	5.18%	1.86%	2.86%	4.73%	2.22%	2.76%	2.78%
	Lower 10%	3.65%	1.34%	-1.43%	3.92%	1.47%	0.59%	1.41%
	Upper 10%	6.91%	2.46%	9.06%	6.26%	3.11%	4.26%	4.23%
FY 2024								
	Median	4.91%	1.78%	2.99%	4.96%	2.19%	2.81%	2.64%
	Lower 10%	3.05%	1.07%	-3.34%	3.94%	1.38%	0.75%	0.80%
	Upper 10%	6.82%	2.53%	10.01%	6.66%	3.22%	4.35%	4.26%
FY 2026								
	Median	4.90%	1.70%	3.40%	5.08%	2.09%	2.75%	2.54%
	Lower 10%	2.72%	0.89%	-4.26%	3.96%	1.13%	0.59%	0.41%
	Upper 10%	6.91%	2.56%	10.66%	6.80%	3.28%	4.41%	4.32%

All data in the above table are percentage growth rates except 30 year mortgage rate.

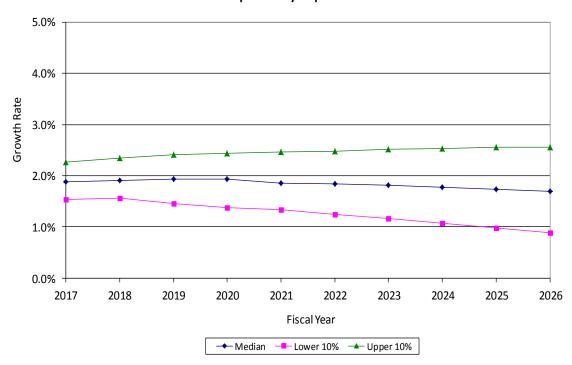
Personal income and 30 year mortage rate are nominal rates.

/1 Data for Maricopa County

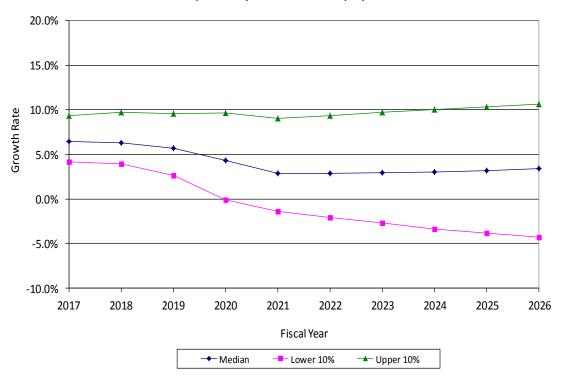




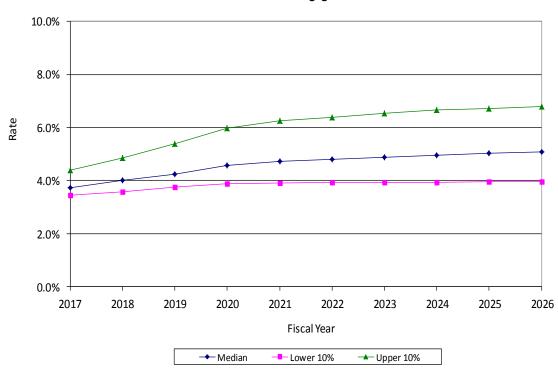
Maricopa County Population Growth



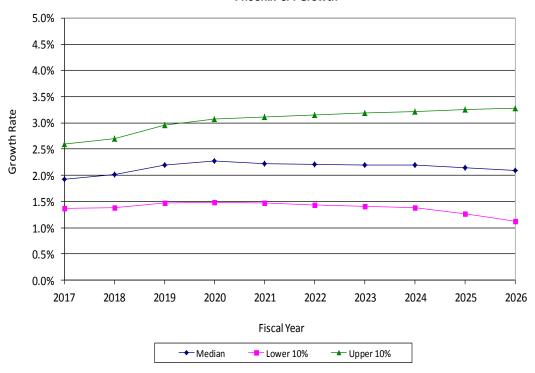
Maricopa County Construction Employment Growth



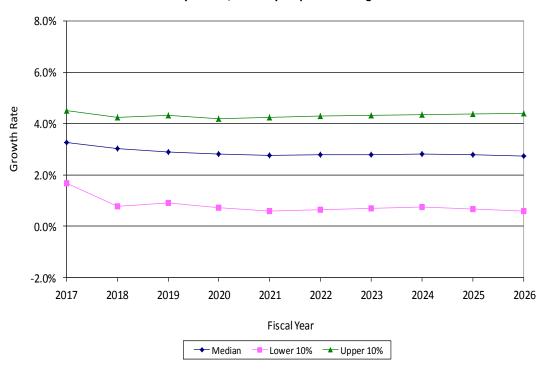
30 Year Mortgage Rate



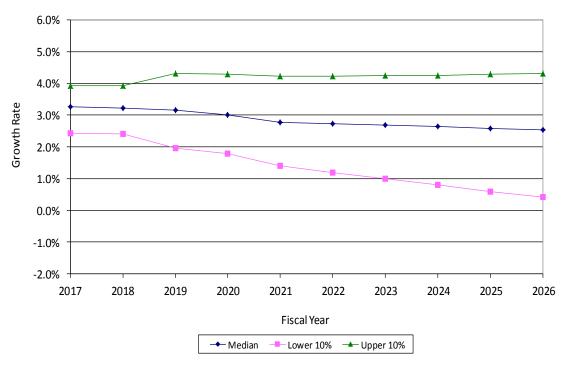




Phoenix Sky Harbor/Gateway Airports Passenger Traffic Growth



Maricopa County Total Non-Farm Employment Growth



Maricopa County Nominal Personal Income Growth

	2017	2010	2010	2020	2021	2024	2026
Panelist 1	2017	2018	2019	2020	2021	2024	2026
Median	5.5%	5.8%	5.8%	5.7%	5.9%	5.5%	5.7%
Lower 10%	4.5%	5.1%	4.6%	4.6%	4.2%	3.1%	2.3%
Upper 10%	6.4%	7.0%	7.7%	8.0%	7.8%	6.9%	7.1%
Panelist 2	0.470	7.070	7.770	0.070	7.070	0.570	7.170
Median	5.7%	5.9%	5.8%	5.7%	5.5%	5.3%	5.2%
Lower 10%	5.0%	5.0%	4.8%	4.8%	4.5%	4.0%	4.0%
Upper 10%	6.2%	6.3%	6.2%	6.1%	6.0%	5.8%	5.7%
Panelist 3	0.270	0.570	0.270	0.170	0.070	3.070	3.770
Median	6.2%	6.7%	6.8%	6.4%	6.1%	5.7%	5.6%
Lower 10%	5.4%	5.9%	5.7%	5.3%	4.7%	3.7%	2.9%
Upper 10%	7.0%	7.5%	7.9%	7.6%	7.4%	7.7%	8.3%
Panelist 4	, .0 / 0	, .5 /0	,	7.570	,. +/0	, /0	3.370
Median	4.5%	5.2%	4.5%	4.5%	4.5%	4.5%	4.5%
Lower 10%	3.5%	3.5%	3.5%	3.0%	3.0%	2.5%	1.5%
Upper 10%	5.5%	6.0%	6.1%	6.5%	6.5%	6.5%	6.2%
Panelist 5	3.370	0.070	0.170	0.570	0.570	0.570	0.270
Median	5.9%	5.9%	6.1%	5.7%	5.7%	5.3%	5.3%
Lower 10%	4.7%	4.6%	4.5%	4.2%	4.0%	2.8%	2.6%
Upper 10%	6.6%	6.7%	7.0%	7.1%	7.2%	7.3%	7.8%
Panelist 6	0.070	0.77	7.070	, , .	7.270	7.070	7.070
Median	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%
Lower 10%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%
Upper 10%	6.0%	6.0%	7.0%	7.0%	7.0%	7.0%	7.0%
Panelist 7							
Median	5.7%	5.9%	5.8%	5.7%	5.5%	5.1%	5.0%
Lower 10%	4.7%	4.9%	4.9%	4.5%	4.0%	3.0%	3.0%
Upper 10%	6.5%	6.7%	6.9%	6.8%	6.8%	6.5%	6.5%
Panelist 8							
Median	3.6%	3.2%	3.2%	3.0%	2.7%	2.7%	2.7%
Lower 10%	3.3%	2.9%	2.9%	2.7%	2.4%	2.4%	2.4%
Upper 10%	5.6%	5.2%	5.2%	5.0%	4.7%	4.7%	4.7%
Panelist 9							
Median	5.5%	5.5%	5.5%	5.5%	5.5%	5.0%	5.0%
Lower 10%	3.0%	3.0%	4.0%	4.0%	2.0%	2.0%	2.0%
Upper 10%	7.0%	7.0%	8.0%	8.0%	9.0%	9.0%	9.0%
Panelist 10							
Median	5.5%	5.7%	5.5%	5.6%	5.4%	5.0%	5.0%
Lower 10%	4.9%	5.1%	4.7%	4.6%	4.2%	3.5%	3.0%
Upper 10%	6.0%	6.5%	6.5%	6.7%	6.7%	6.8%	6.8%

All data in the above table are in nominal growth rates.

Maricopa County Population Growth

D 11 . 4	2017	2018	2019	2020	2021	2024	2026
Panelist 1	1.00/	1.00/	1.00/	4.00/	2 22/	2 22/	2.45/
Median	1.8%	1.8%	1.8%	1.9%	2.0%	2.0%	2.1%
Lower 10%	1.4%	1.4%	1.2%	1.3%	1.4%	0.9%	0.9%
Upper 10%	2.1%	2.2%	2.3%	2.3%	2.6%	2.8%	2.8%
Panelist 2							
Median	2.0%	2.0%	2.1%	2.1%	2.0%	2.0%	1.8%
Lower 10%	1.8%	1.8%	1.8%	1.7%	1.7%	1.6%	1.5%
Upper 10%	2.2%	2.2%	2.3%	2.3%	2.2%	2.2%	2.2%
Panelist 3							
Median	1.9%	1.9%	1.9%	1.9%	1.8%	1.7%	1.6%
Lower 10%	1.8%	1.8%	1.7%	1.5%	1.5%	1.1%	0.7%
Upper 10%	2.1%	2.1%	2.2%	2.2%	2.2%	2.3%	2.5%
Panelist 4							
Median	1.9%	2.0%	2.1%	2.1%	1.6%	1.7%	1.6%
Lower 10%	1.5%	1.4%	1.0%	0.5%	0.5%	0.5%	0.2%
Upper 10%	2.5%	2.6%	2.7%	3.0%	3.0%	3.3%	3.5%
Panelist 5	,						
Median	1.8%	1.9%	2.0%	2.0%	2.0%	1.7%	1.6%
Lower 10%	1.6%	1.6%	1.5%	1.5%	1.4%	1.0%	1.0%
Upper 10%	2.1%	2.2%	2.3%	2.3%	2.4%	2.5%	2.6%
Panelist 6	2.170	2.2/0	2.570	2.570	2.470	2.570	2.070
Median	1.8%	1.8%	1.8%	1.8%	1.8%	1.8%	1.8%
Lower 10%	1.6%	1.6%	1.6%	1.6%	1.6%	1.6%	1.6%
Upper 10%	2.0%	2.1%	2.2%	2.2%	2.2%	2.2%	2.2%
Panelist 7	2.0%	2.1/0	2.2/0	2.2/0	2.2/0	2.2/0	2.2/0
Median	1.9%	1.9%	1.9%	1.8%	1.7%	1.6%	1.5%
Lower 10%	1.7% 2.1%	1.7% 2.1%	1.6% 2.2%	1.6% 2.2%	1.4% 2.2%	1.1% 2.2%	0.7% 2.2%
Upper 10%	2.1%	2.1%	2.2%	2.2%	2.2%	2.2%	2.2%
Panelist 8	4.00/	2.00/	1.00/	2.00/	2.00/	4.00/	4.00/
Median	1.8%	2.0%	1.9%	2.0%	2.0%	1.8%	1.8%
Lower 10%	1.5%	1.7%	1.6%	1.7%	1.7%	1.5%	1.5%
Upper 10%	2.2%	2.4%	2.3%	2.4%	2.4%	2.2%	2.2%
Panelist 9							
Median	2.0%	1.9%	1.9%	1.9%	1.9%	1.8%	1.6%
Lower 10%	0.8%	0.9%	0.9%	0.8%	0.8%	0.3%	0.1%
Upper 10%	3.2%	3.5%	3.5%	3.4%	3.4%	3.6%	3.4%
Panelist 10							
Median	1.9%	1.9%	1.9%	1.9%	1.8%	1.7%	1.6%
Lower 10%	1.7%	1.7%	1.6%	1.6%	1.4%	1.1%	0.7%
Upper 10%	2.1%	2.1%	2.1%	2.1%	2.0%	2.0%	2.0%

All data in the above table are in percentage growth rates.

Maricopa County Construction Employment Growth

	2017	2018	2019	2020	2021	2024	2026
Panelist 1							
Median	7.4%	8.0%	7.9%	5.8%	2.6%	2.8%	2.7%
Lower 10%	5.0%	5.1%	3.9%	1.0%	-2.1%	-5.5%	-6.5%
Upper 10%	9.8%	10.5%	10.5%	9.9%	9.1%	9.6%	10.5%
Panelist 2	0.0,0				0.2,1	0.07.	
Median	6.5%	6.5%	5.0%	4.5%	3.5%	3.5%	3.5%
Lower 10%	4.5%	3.5%	3.0%	2.5%	2.0%	2.0%	2.0%
Upper 10%	7.5%	7.5%	6.0%	6.0%	5.5%	5.5%	5.5%
Panelist 3							
Median	7.2%	7.8%	7.0%	3.8%	2.4%	2.1%	2.3%
Lower 10%	4.7%	5.3%	4.5%	-1.5%	-2.9%	-5.0%	-7.2%
Upper 10%	9.7%	10.3%	9.5%	9.1%	7.7%	9.2%	11.8%
Panelist 4							
Median	4.0%	3.0%	3.0%	2.5%	2.5%	3.0%	3.5%
Lower 10%	3.0%	2.5%	-5.0%	-7.0%	-2.6%	-4.6%	-7.1%
Upper 10%	9.9%	10.1%	12.0%	15.0%	15.0%	15.0%	15.0%
Panelist 5							
Median	7.0%	7.3%	6.8%	6.0%	4.8%	3.5%	3.5%
Lower 10%	4.0%	3.8%	3.0%	0.0%	-5.0%	-8.0%	-9.0%
Upper 10%	10.0%	12.0%	13.0%	14.0%	15.0%	16.0%	17.0%
Panelist 6							
Median	7.0%	5.0%	5.0%	5.0%	3.0%	3.0%	3.0%
Lower 10%	5.0%	3.0%	3.0%	3.0%	1.0%	1.0%	1.0%
Upper 10%	8.0%	8.0%	8.0%	6.0%	5.0%	5.0%	5.0%
Panelist 7							
Median	7.0%	7.0%	6.0%	4.0%	2.3%	2.5%	2.0%
Lower 10%	4.5%	4.5%	3.0%	-2.0%	-3.0%	-5.0%	-7.5%
Upper 10%	9.5%	10.0%	9.0%	9.0%	8.0%	8.0%	8.0%
Panelist 8							
Median	4.6%	3.4%	3.3%	3.9%	2.5%	2.5%	2.5%
Lower 10%	3.3%	2.1%	3.0%	3.6%	1.2%	1.2%	1.2%
Upper 10%	5.9%	4.7%	5.6%	6.2%	3.8%	3.8%	3.8%
Panelist 9							
Median	7.0%	7.8%	6.0%	2.0%	1.0%	2.0%	5.0%
Lower 10%	3.0%	4.0%	3.0%	-5.0%	-5.0%	-12.0%	-12.0%
Upper 10%	13.0%	14.0%	13.0%	12.5%	12.5%	18.0%	18.0%
Panelist 10							
Median	7.0%	7.5%	7.0%	6.0%	4.0%	5.0%	6.0%
Lower 10%	5.0%	5.5%	5.0%	4.0%	2.0%	2.5%	2.5%
Upper 10%	10.0%	10.0%	9.5%	9.0%	9.0%	10.0%	12.0%

All data in the above table are in percentage growth rates.

30 Year Mortgage

	2017	2018	2019	2020	2021	2024	2026
Panelist 1							
Median	3.7%	4.1%	4.7%	5.4%	5.7%	5.7%	5.7%
Lower 10%	3.4%	3.7%	4.3%	5.0%	5.1%	4.9%	4.6%
Upper 10%	4.1%	4.4%	5.1%	5.8%	6.3%	6.5%	6.8%
Panelist 2							
Median	3.9%	4.0%	4.2%	4.5%	4.8%	5.0%	5.2%
Lower 10%	3.7%	3.7%	3.7%	4.0%	4.0%	4.0%	4.2%
Upper 10%	4.2%	4.5%	5.5%	5.5%	5.7%	5.7%	5.8%
Panelist 3							
Median	3.5%	3.8%	4.0%	4.3%	4.6%	5.4%	5.9%
Lower 10%	3.3%	3.6%	3.6%	3.9%	4.0%	4.5%	4.7%
Upper 10%	3.7%	4.0%	4.5%	4.7%	5.2%	6.2%	7.0%
Panelist 4							
Median	3.9%	4.2%	4.7%	5.4%	5.7%	5.7%	5.7%
Lower 10%	3.7%	4.0%	4.3%	5.0%	5.1%	4.9%	4.6%
Upper 10%	4.1%	4.4%	5.1%	6.5%	7.0%	8.0%	8.0%
Panelist 5							
Median	3.8%	4.2%	4.5%	5.0%	5.2%	5.5%	5.5%
Lower 10%	3.4%	3.8%	3.9%	3.9%	4.0%	4.1%	4.0%
Upper 10%	4.1%	4.6%	5.4%	5.7%	6.0%	6.7%	7.0%
Panelist 6			311,0	017,0	0.070	0.7,0	7.1070
Median	3.5%	4.0%	4.0%	4.5%	5.0%	5.0%	5.0%
Lower 10%	3.3%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%
Upper 10%	4.0%	5.0%	5.0%	5.5%	6.0%	6.0%	6.0%
Panelist 7	4.070	3.070	3.070	3.570	0.070	0.070	0.070
Median	3.9%	4.2%	4.5%	4.5%	4.5%	5.0%	5.0%
Lower 10%	3.5%	3.7%	4.0%	4.0%	4.0%	4.0%	4.0%
Upper 10%	4.5%	4.7%	5.2%	5.5%	6.0%	6.5%	6.5%
Panelist 8	4.576	4.7 /0	J.Z/0	3.370	0.076	0.576	0.576
Median	3.3%	3.1%	2.7%	2.5%	2.5%	3.0%	3.5%
Lower 10%	2.6%	1.9%	2.7%	2.5%	2.5%	2.0%	2.5%
	3.9%	4.0%	4.0%	4.5%	4.3%	4.3%	4.3%
Upper 10%	3.9%	4.0%	4.0%	4.5%	4.3%	4.3%	4.5%
Panelist 9	2.00/	4.00/	4.00/	4.00/	2.00/	2.00/	2.00/
Median	3.8%	4.0%	4.0%	4.0%	3.8%	3.8%	3.8%
Lower 10%	3.8%	3.8%	3.8%	3.6%	3.6%	3.5%	3.5%
Upper 10%	6.8%	8.0%	8.1%	8.1%	8.1%	8.7%	8.5%
Panelist 10							
Median	4.0%	4.5%	5.0%	5.5%	5.5%	5.5%	5.5%
Lower 10%	3.9%	4.0%	4.5%	4.0%	4.0%	4.0%	4.0%
Upper 10%	4.4%	5.0%	6.0%	8.0%	8.0%	8.0%	8.0%

All data in the above table are in nominal rates.

Phoenix CPI Growth

	2017	2018	2019	2020	2021	2024	2026
Panelist 1	2017	2018	2019	2020	2021	2024	2020
Median	2.0%	2.1%	2.4%	2.3%	2.3%	2.4%	2.0%
Lower 10%	1.2%	1.3%	1.3%	1.7%	1.6%	1.3%	1.0%
Upper 10%	2.7%	2.8%	3.0%	2.8%	2.7%	2.9%	3.0%
Panelist 2	2.770	2.070	3.070	2.070	2.770	2.570	3.070
Median	2.2%	2.3%	2.5%	2.3%	2.2%	2.1%	1.9%
Lower 10%	1.7%	1.8%	2.0%	1.8%	1.7%	1.3%	0.8%
Upper 10%	2.7%	2.8%	3.0%	2.8%	2.7%	2.9%	3.0%
Panelist 3							
Median	2.3%	2.4%	2.4%	2.4%	2.5%	2.3%	2.1%
Lower 10%	1.8%	2.0%	2.0%	1.8%	1.9%	1.5%	1.0%
Upper 10%	2.7%	2.9%	2.9%	2.9%	3.0%	3.1%	3.2%
Panelist 4							
Median	1.4%	1.5%	1.8%	2.5%	2.2%	2.1%	1.9%
Lower 10%	1.1%	1.0%	1.0%	1.2%	1.2%	1.2%	0.8%
Upper 10%	2.7%	2.8%	3.0%	3.1%	3.2%	3.3%	3.5%
Panelist 5							
Median	1.9%	2.1%	2.3%	2.3%	2.0%	2.0%	2.0%
Lower 10%	1.4%	1.1%	1.3%	0.9%	0.8%	0.7%	0.5%
Upper 10%	2.8%	2.9%	3.2%	3.3%	3.4%	3.8%	4.2%
Panelist 6							
Median	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%
Lower 10%	1.7%	1.7%	1.7%	1.7%	1.7%	1.7%	1.7%
Upper 10%	2.5%	2.5%	3.0%	3.0%	3.0%	3.0%	3.0%
Panelist 7							
Median	1.9%	2.0%	2.2%	2.2%	2.2%	2.0%	2.0%
Lower 10%	1.5%	1.7%	1.7%	1.7%	1.7%	1.5%	1.3%
Upper 10%	2.4%	2.5%	2.7%	2.7%	2.7%	2.5%	2.5%
Panelist 8							
Median	2.0%	1.9%	2.2%	2.5%	2.5%	3.0%	3.0%
Lower 10%	1.2%	1.1%	1.4%	1.7%	1.7%	2.2%	2.2%
Upper 10%	3.0%	3.2%	3.2%	3.5%	3.5%	4.0%	4.0%
Panelist 9							
Median	2.2%	2.3%	2.3%	2.3%	2.3%	2.0%	2.0%
Lower 10%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	0.5%
Upper 10%	2.6%	2.8%	3.2%	4.0%	4.2%	4.2%	3.9%
Panelist 10							
Median	1.3%	1.5%	1.7%	2.0%	2.0%	2.0%	2.0%
Lower 10%	1.0%	1.1%	1.2%	1.5%	1.5%	1.5%	1.5%
Upper 10%	2.0%	2.0%	2.5%	2.5%	2.5%	2.5%	2.5%

All data in the above table are in percentage growth rates.

Sky Harbor/Gateway Airports Passenger Traffic Growth

	2017	2018	2019	2020	2021	2024	2026
Panelist 1							
Median	1.5%	2.0%	2.1%	1.8%	1.9%	2.0%	2.0%
Lower 10%	0.8%	0.8%	1.0%	1.1%	1.0%	0.7%	0.3%
Upper 10%	2.9%	2.8%	2.8%	2.8%	3.0%	3.4%	3.7%
Panelist 2							
Median	3.2%	3.0%	2.8%	2.6%	2.4%	2.0%	2.0%
Lower 10%	2.0%	2.0%	1.5%	1.5%	1.4%	1.2%	1.0%
Upper 10%	3.5%	3.5%	3.3%	3.2%	3.0%	2.8%	2.8%
Panelist 3							
Median	5.9%	6.8%	7.2%	6.1%	5.7%	5.5%	4.9%
Lower 10%	5.1%	6.0%	6.3%	5.2%	4.7%	4.3%	3.2%
Upper 10%	6.7%	7.7%	8.1%	7.0%	6.7%	6.8%	6.6%
Panelist 4							
Median	2.5%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%
Lower 10%	1.3%	0.5%	-1.0%	-2.0%	-2.0%	1.0%	2.0%
Upper 10%	3.1%	3.3%	4.5%	5.0%	6.0%	6.0%	6.0%
Panelist 5							
Median	2.6%	2.4%	2.1%	2.1%	2.1%	2.1%	2.1%
Lower 10%	1.3%	1.1%	1.0%	0.9%	0.8%	0.6%	0.2%
Upper 10%	3.3%	3.4%	3.5%	3.6%	3.7%	3.9%	4.2%
Panelist 6							
Median	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%
Lower 10%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%
Upper 10%	6.0%	6.0%	6.0%	6.0%	6.0%	6.0%	6.0%
Panelist 7	2.00/	2.00/	2.00/	2.00/	2.00/	2.00/	2.00/
Median	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%
Lower 10%	1.3%	1.2%	1.1%	1.1%	1.0%	0.7%	0.3%
Upper 10%	2.9%	2.9%	2.9%	2.9%	3.0%	3.3%	3.5%
Panelist 8	4.50/	2.40/	2.70/	2.70/	2.50/	2.50/	2.50/
Median	4.5%	3.1%	2.7%	2.7%	2.5%	2.5%	2.5%
Lower 10%	3.0%	1.6%	1.2%	1.2%	1.0%	1.0%	1.0%
Upper 10%	6.0%	4.6%	4.2%	4.2%	4.0%	4.0%	4.0%
Panelist 9	3.0%	2.0%	2.0%	2.0%	2.0%	2.00/	2.00/
Median						3.0%	3.0%
Lower 10%	-2.0%	-9.0% 3.9%	-5.0% 4.1%	-5.0% 3.3%	-5.0% 3.3%	-5.0%	-5.0%
Upper 10% Panelist 10	6.0%	3.9%	4.170	3.3%	3.3%	3.3%	3.3%
Median	3.5%	3.0%	2.0%	3.0%	3.0%	3.0%	3.0%
Lower 10%	2.0%	1.5%	1.1%	1.1%	1.0%	1.0%	1.0%
Upper 10%	4.5%	4.5%	4.0%	4.0%	4.0%	4.0%	4.0%
Obbei 10%	4.570	4.570	4.070	4.070	4.070	4.070	4.070

All data in the above table are in percentage growth rates.

Maricopa County Total Non-Farm Employment Growth

T							
	2017	2018	2019	2020	2021	2024	2026
Panelist 1							
Median	3.2%	3.3%	3.2%	3.0%	2.8%	3.0%	2.7%
Lower 10%	2.5%	2.5%	2.4%	1.7%	1.5%	0.7%	0.0%
Upper 10%	3.9%	4.0%	4.6%	4.5%	4.8%	4.8%	5.0%
Panelist 2							
Median	3.5%	3.5%	3.3%	3.1%	3.0%	2.7%	2.6%
Lower 10%	2.6%	2.6%	2.0%	1.7%	1.5%	1.0%	0.5%
Upper 10%	4.2%	4.2%	4.5%	4.2%	4.0%	3.5%	3.5%
Panelist 3							
Median	3.2%	3.2%	3.0%	2.7%	2.5%	2.3%	2.1%
Lower 10%	2.5%	2.5%	1.6%	1.3%	0.8%	0.3%	-0.5%
Upper 10%	3.9%	3.9%	4.4%	4.1%	4.2%	4.3%	4.7%
Panelist 4							
Median	3.3%	3.5%	3.3%	3.1%	3.0%	2.7%	2.6%
Lower 10%	2.8%	2.8%	1.9%	1.7%	1.3%	0.7%	0.0%
Upper 10%	4.2%	4.2%	5.0%	5.0%	5.5%	5.6%	6.0%
Panelist 5							
Median	3.3%	3.2%	3.2%	3.1%	3.1%	2.7%	2.6%
Lower 10%	2.4%	2.3%	2.0%	1.9%	1.5%	0.5%	0.2%
Upper 10%	4.1%	4.1%	4.5%	4.6%	4.7%	4.9%	5.3%
Panelist 6							
Median	3.5%	3.5%	3.5%	3.5%	2.5%	2.5%	2.5%
Lower 10%	3.0%	3.0%	2.5%	2.5%	1.5%	1.5%	1.5%
Upper 10%	4.0%	4.0%	4.0%	4.0%	3.0%	3.0%	3.0%
Panelist 7							
Median	3.3%	3.3%	3.2%	3.0%	2.9%	2.7%	2.5%
Lower 10%	2.7%	2.6%	1.9%	1.7%	1.3%	0.7%	0.0%
Upper 10%	4.0%	4.0%	4.2%	4.2%	4.2%	4.2%	4.5%
Panelist 8							
Median	2.5%	2.1%	2.4%	2.6%	2.3%	2.0%	2.0%
Lower 10%	2.0%	1.6%	1.9%	2.1%	1.8%	1.5%	1.5%
Upper 10%	3.0%	2.6%	2.9%	3.1%	2.8%	2.5%	2.5%
Panelist 9							
Median	3.3%	3.3%	3.0%	3.0%	3.0%	2.8%	2.8%
Lower 10%	1.0%	1.3%	1.6%	1.6%	1.6%	0.3%	0.2%
Upper 10%	4.0%	4.3%	4.6%	4.6%	4.6%	5.3%	4.2%
Panelist 10							
Median	3.5%	3.4%	3.4%	3.0%	2.7%	3.0%	3.0%
Lower 10%	2.8%	2.7%	1.9%	1.7%	1.3%	0.7%	0.5%
Upper 10%	4.2%	4.1%	4.5%	4.5%	4.5%	4.5%	4.5%
	,	,5	,	,	,	,	,

All data in the above table are in percentage growth rates.

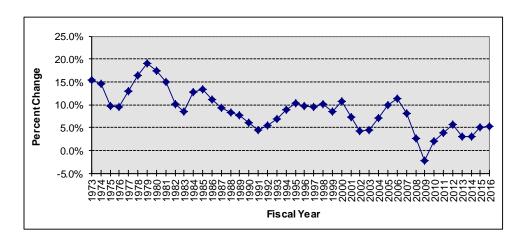
HISTORICAL DATA MARICOPA COUNTY NOMINAL PERSONAL INCOME GROWTH (Annual Percent Change)

HISTORICAL DATA BY FISCAL YEAR (July 1 through June 30)

1971		1981	15.1%	1991	4.5%	2001	7.3%	2011	3.7%
1972		1982	10.1%	1992	5.4%	2002	4.2%	2012	5.6%
1973	15.4%	1983	8.5%	1993	6.9%	2003	4.4%	2013	3.1%
1974	14.6%	1984	12.7%	1994	8.9%	2004	7.0%	2014	3.0%
1975	9.7%	1985	13.3%	1995	10.2%	2005	10.0%	2015	5.0%
1976	9.5%	1986	11.1%	1996	9.7%	2006	11.3%	2016*	5.3%
1977	12.9%	1987	9.3%	1997	9.5%	2007	8.1%	2017	
1978	16.4%	1988	8.2%	1998	10.0%	2008	2.6%	2018	
1979	19.1%	1989	7.7%	1999	8.5%	2009	-2.2%	2019	
1980	17.3%	1990	6.0%	2000	10.8%	2010	2.0%	2020	

FY 1973-2014 data from BEA; FY 2015-2016* data from Phoenix Blue Chip. FY 2017-2026 from ADOT staff.

HISTORICAL DATA - GRAPHED



HISTORICAL DATA - ANALYSIS

		Histo	Historical		Std.	80% F	Range
l	Period	Min.	Max.	Mean	Dev.	Lower	Upper
	5 Years	3.0%	5.6%	4.4%	1.3%	3.0%	5.5%
	10 Years	-2.2%	8.1%	3.6%	2.7%	1.6%	5.8%
	Full Period	-2.2%	19.1%	8.7%	4.5%	3.3%	14.9%

September 2016

^{*}FY 2016-2026 are estimates.

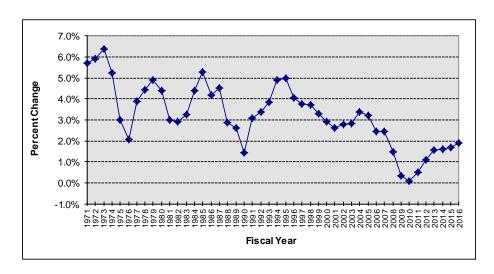
HISTORICAL DATA MARICOPA COUNTY POPULATION GROWTH (Annual Percent Change)

HISTORICAL DATA BY FISCAL YEAR (July 1 through June 30)

1971	5.7%	1981	3.0%	1991	3.1%	2001	2.6%	2011	0.5%
1972	5.9%	1982	2.9%	1992	3.4%	2002	2.8%	2012	1.1%
1973	6.4%	1983	3.2%	1993	3.8%	2003	2.8%	2013	1.5%
1974	5.2%	1984	4.4%	1994	4.9%	2004	3.4%	2014	1.6%
1975	3.0%	1985	5.3%	1995	5.0%	2005	3.2%	2015	1.7%
1976	2.1%	1986	4.2%	1996	4.0%	2006	2.4%	2016*	1.9%
1977	3.9%	1987	4.5%	1997	3.8%	2007	2.4%	2017	
1978	4.4%	1988	2.9%	1998	3.7%	2008	1.5%	2018	
1979	4.9%	1989	2.6%	1999	3.3%	2009	0.3%	2019	
1980	4.4%	1990	1.4%	2000	2.9%	2010	0.1%	2020	

 $FY\ 1999\ and\ prior: from\ U.S.\ Census\ Bureau.\ FY\ 2000-2015\ ADOA\ Office\ of\ Employment\ and\ Population\ Statistics\ (EPS)\ estimates.$

HISTORICAL DATA - GRAPHED



HISTORICAL DATA - ANALYSIS

	Histo	orical		Std.	80%	Range
Period	Min.	Max.	Mean	Dev.	Lower	Upper
5 Years	1.1%	1.9%	1.6%	0.3%	1.3%	1.8%
10 Years	0.1%	2.4%	1.3%	0.8%	0.3%	2.0%
Full Period	0.1%	6.4%	3.2%	1.5%	1.5%	5.1%

^{*}FY 2016-2026 ADOA EPS projections Medium Series.

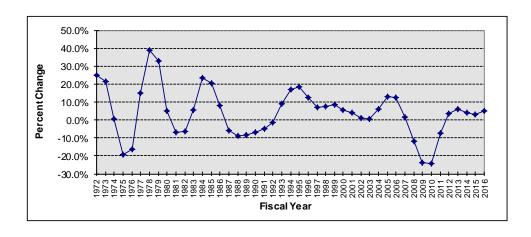
HISTORICAL DATA MARICOPA COUNTY CONSTRUCTION EMPLOYMENT GROWTH (Annual Percent Change)

HISTORICAL DATA BY FISCAL YEAR (July 1 through June 30)

1971		1981	-6.7%	1991	-4.8%	2001	4.1%	2011	-7.2%
1972	24.9%	1982	-6.5%	1992	-1.5%	2002	1.1%	2012	3.4%
1973	21.3%	1983	5.4%	1993	9.0%	2003	0.4%	2013	6.1%
1974	0.4%	1984	23.4%	1994	16.8%	2004	6.1%	2014	4.1%
1975	-19.3%	1985	20.3%	1995	18.2%	2005	12.7%	2015	2.8%
1976	-16.5%	1986	7.9%	1996	12.2%	2006	12.6%	2016*	5.2%
1977	14.8%	1987	-5.8%	1997	6.9%	2007	1.6%	2017	
1978	38.9%	1988	-9.0%	1998	7.5%	2008	-11.6%	2018	
1979	32.7%	1989	-8.4%	1999	8.4%	2009	-23.8%	2019	
1980	5.2%	1990	-6.7%	2000	5.7%	2010	-24.2%	2020	

FY 1989 and prior BLS SIC not seasonally adjusted, 1990-2015 BLS NAICS not seasonally adjusted.

HISTORICAL DATA - GRAPHED



HISTORICAL DATA - ANALYSIS

	Historical			Std.	80%	Range
Period	Min.	Max.	Mean	Dev.	Lower	Upper
5 Years	2.8%	6.1%	4.3%	1.3%	3.0%	5.7%
10 Years	-24.2%	6.1%	-4.4%	11.8%	-23.8%	5.3%
Full Period	-24.2%	38.9%	4.2%	13.5%	-10.6%	20.9%

^{*}FY 2016-2017 Phoenix Blue Chip estimates. FY 2018-2026 from ADOT staff.

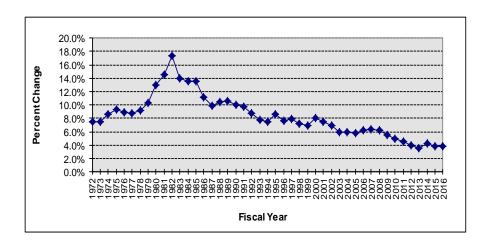
HISTORICAL DATA 30 YEAR MORTGAGE RATE

HISTORICAL DATA BY FISCAL YEAR (July 1 through June 30)

1971		1981	12.9%	1991	10.1%	2001	8.1%	2011	4.9%
1972	0.0%	1982	14.6%	1992	9.8%	2002	7.5%	2012	4.0%
1973	7.5%	1983	17.3%	1993	8.8%	2003	6.9%	2013	3.5%
1974	7.5%	1984	14.0%	1994	7.9%	2004	5.9%	2014	4.3%
1975	8.6%	1985	13.6%	1995	7.5%	2005	5.9%	2015	3.9%
1976	9.4%	1986	13.5%	1996	8.6%	2006	5.8%	2016	3.8%
1977	8.9%	1987	11.2%	1997	7.6%	2007	6.2%	2017	
1978	8.8%	1988	9.8%	1998	7.9%	2008	6.3%	2018	
1979	9.1%	1989	10.5%	1999	7.2%	2009	6.2%	2019	
1980	12.9%	1990	10.6%	2000	6.9%	2010	5.6%	2020	

FY 1972-2016 data from Federal Reserve. FY 2017-2026 based on Global Insight, 1st Quarter 2016, Trend Forecast.

HISTORICAL DATA - GRAPHED



HISTORICAL DATA - ANALYSIS

	Histo	orical		Std.	80%	Range
Period	Min.	Max.	Mean	Dev.	Lower	Upper
5 Years	3.5%	4.3%	3.9%	0.3%	3.6%	4.2%
10 Years	3.5%	6.3%	4.7%	1.0%	3.8%	6.2%
Full Period	3.5%	17.3%	8.3%	3.1%	4.4%	13.3%

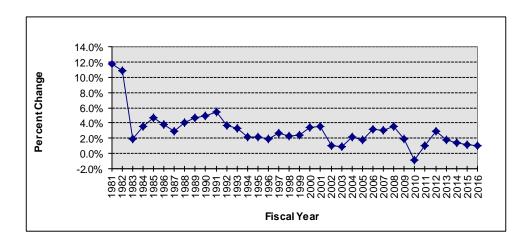
HISTORICAL DATA PHOENIX CPI GROWTH RATE (Annual Percent Change)

HISTORICAL DATA BY FISCAL YEAR (July 1 through June 30)

1971	1981	11.8%	1991	5.5%	2001	3.5%	2011	1.0%
1972	1982	10.8%	1992	3.7%	2002	1.0%	2012	2.9%
1973	1983	1.9%	1993	3.3%	2003	0.8%	2013	1.8%
1974	1984	3.5%	1994	2.2%	2004	2.1%	2014	1.3%
1975	1985	4.7%	1995	2.2%	2005	1.8%	2015	1.1%
1976	1986	3.8%	1996	1.9%	2006	3.2%	2016*	1.0%
1977	1987	2.9%	1997	2.6%	2007	3.1%	2017	
1978	1988	4.0%	1998	2.3%	2008	3.5%	2018	
1979	1989	4.7%	1999	2.4%	2009	1.9%	2019	
1980	1990	5.0%	2000	3.4%	2010	-0.9%	2020	

FY 1981-2026 from Moody's Analytics. *FY 2016-2026 are estimates.

HISTORICAL DATA - GRAPHED



HISTORICAL DATA - ANALYSIS

		Histo	orical		Std.	80%	Range
F	Period	Min.	Max.	Mean	Dev.	Lower	Upper
5	Years	1.0%	2.9%	1.6%	0.8%	1.0%	2.5%
10	0 Years	-0.9%	3.5%	1.7%	1.3%	0.8%	3.1%
Fu	ll Period	-0.9%	11.8%	3.1%	2.4%	1.0%	4.8%

HISTORICAL DATA PHOENIX SKY HARBOR/GATEWAY AIRPORTS PASSENGER TRAFFIC GROWTH (Annual Percent Change)

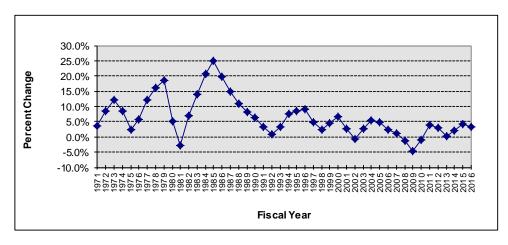
HISTORICAL DATA BY FISCAL YEAR (July 1 through June 30)

1971	3.6%	1981	-2.8%	1991	3.4%	2001	2.7%	2011	4.0%
1972	8.4%	1982	6.8%	1992	0.9%	2002	-0.7%	2012	3.1%
1973	12.2%	1983	13.9%	1993	3.3%	2003	2.8%	2013	0.2%
1974	8.4%	1984	20.6%	1994	7.7%	2004	5.4%	2014	1.9%
1975	2.4%	1985	24.8%	1995	8.6%	2005	4.9%	2015	4.2%
1976	5.7%	1986	19.6%	1996	8.9%	2006	2.4%	2016*	3.3%
1977	12.2%	1987	14.8%	1997	4.8%	2007	1.3%	2017	
1978	16.1%	1988	10.9%	1998	2.2%	2008	-1.4%	2018	
1979	18.7%	1989	8.1%	1999	4.6%	2009	-4.7%	2019	
1980	5.0%	1990	6.4%	2000	6.5%	2010	-1.1%	2020	

FY 1971-2015 data obtained from Phoenix Sky Harbor International Airport and combined with data obtained from

Gateway Airport (FY 2004-2015). *FY 2016-2026 estimates are from Phoenix Sky Harbor Airport staff and Gateway Airport staff.

HISTORICAL DATA - GRAPHED



HISTORICAL DATA - ANALYSIS

	Historical			Std.	80% Range	
Period	Min.	Max.	Mean	Dev.	Lower	Upper
5 Years	0.2%	4.2%	2.5%	1.5%	0.9%	3.8%
10 Years	-4.7%	4.2%	1.1%	2.8%	-1.7%	4.1%
Full Period	-4.7%	24.8%	6.4%	6.4%	-0.3%	15.5%

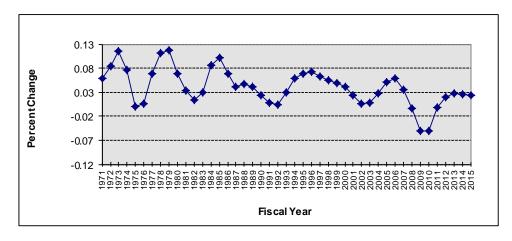
HISTORICAL DATA MARICOPA COUNTY TOTAL NON-FARM EMPLOYMENT GROWTH (Annual Percent Change)

HISTORICAL DATA BY FISCAL YEAR (July 1 through June 30)

1971	5.8%	1981	3.4%	1991	0.9%	2001	2.4%	2011	-0.2%
1972	8.5%	1982	1.5%	1992	0.4%	2002	0.6%	2012	2.0%
1973	11.6%	1983	2.9%	1993	3.0%	2003	0.8%	2013	2.7%
1974	7.6%	1984	8.6%	1994	5.8%	2004	2.7%	2014	2.6%
1975	0.0%	1985	10.2%	1995	6.9%	2005	5.1%	2015	2.8%
1976	0.5%	1986	6.9%	1996	7.2%	2006	5.8%	2016*	3.4%
1977	6.9%	1987	4.1%	1997	6.3%	2007	3.5%	2017	
1978	11.1%	1988	4.7%	1998	5.4%	2008	-0.4%	2018	
1979	11.8%	1989	4.1%	1999	5.0%	2009	-5.1%	2019	
1980	6.9%	1990	2.3%	2000	4.1%	2010	-5.0%	2020	

FY 1971-1989 Bureau of Labor Statistics (BLS) SIC not seasonally adjusted, FY 1990-2015 seasonally adjusted data from BLS (NAIC *FY 2016-2019 from University of Arizona forecast. FY 2020-2026 from ADOT staff.

HISTORICAL DATA - GRAPHED



HISTORICAL DATA - ANALYSIS

	Histo	orical		Std.	80% Range	
Period	Min.	Max.	Mean	Dev.	Lower	Upper
5 Years	2.0%	3.4%	2.7%	0.5%	2.3%	3.2%
10 Years	-5.1%	3.5%	0.6%	3.3%	-5.0%	3.4%
Full Period	-5.1%	11.8%	4.1%	3.7%	0.2%	8.5%